Presentation to Joint Legislative Oversight Committee on Information Technology

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⌘Disaster Recovery Report

⌘E-mail Report

⌘Electronic Document Pilot

⌘State Portal

Disaster Recovery Background

- Three primary reasons General Assembly approved second data center in Rutherford County in 2006:
  - Improve disaster recovery
  - Build state's IT infrastructure by increasing operational capacity
  - Keep taxpayer dollars in NC

- $32.5 million center completed on time and within budget; now operational

Disaster Recovery Background

⌘ General Assembly last year directed State CIO to report on:

◩ The number of critical state applications with inadequate capability to recover from a disaster, either natural or manmade

◩ The agencies utilizing those applications

◩ Plans for providing adequate recovery capability

Approach

- ⌘ Used Application Portfolio Management tool to collect data

- ⌘ Tool is a software program put in place after the passage of SB 991 in 2004

- ⌘ Information on more than 1,424 applications used in state government

- ⌘ Tool also used for project approval and monitoring

Approach

⌘ Asked agencies to provide:

☑ Basic information about their disaster recovery capabilities

☑ A ranking of criticality of applications: statewide critical, department critical or program critical

☑ If disaster recover has been tested—a critical component of having adequate recovery capabilities

⌘ Held two information sessions with agencies to discuss development of report

⌘ Of 1,047 critical applications identified by agencies, 327 (31%) do not have adequate recovery capability

⌘ Of the 236 statewide critical applications, 116 (49%) have never been tested to see if business continuity and disaster recovery plans are adequate

⌘ Testing is the <u>only</u> way to determine if plans are adequate

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- ⌘ Estimated cost of providing adequate recovery capability for all critical applications is $2.6 million - $5.2 million

- ⌘ Cost of $680,000 - $1.4 million to provide adequate recovery capability for statewide critical applications

- ⌘ Based on agency data, not verified

Findings Summary

Criticality Rating	Number of Applications	Recovery capability not adequate (%)	Applications never tested (%)	Cost of adequate recovery capability (midpoint)	Cost of adequate recovery capability (high end)
Statewide	236	60 (25%)	116 (49%)	$680,003	$1,360,006
Department	348	94 (27%)	154 (44%)	$970,003	$1,940.007
Program	463	173 (37%)	227 (49%)	$955,001	$1,901,003
Total	1047	327 (31%)	497 (47%)	$2,605,008	$5,210,016

Statewide Critical Breakdown by Agency

Agency	Statewide Critical Applications with Inadequate Recovery Capability	Statewide Critical Applications Recovery Not Tested
Administration	13 (62%)	21 (100%)
Agriculture and Consumer Services	0	1 (33%)
Crime Control and Public Safety	10 (71%)	10 (71%)
Cultural Resources	4 (80%)	5 (100%)
Employment Security Commission	0	2 (33%)
Environment and Natural Resources	10 (33%)	11 (37%)
Health and Human Services	5 (13%)	9 (23%)
Industrial Commission	2 (67%)	2 (67%)
ITS	2 (25%)	3 (38%)
Insurance	0	3 (100%)
Public Instruction	8 (25%)	29 (91%)
State Board of Elections	0	3 (60%)
Transportation	6 (15%)	17 (44%)
Statewide Total	**60 (25%)**	**116 (49%)**

Department Critical Breakdown by Agency

Agency	Department Critical Applications with Inadequate Recover Capability	Department Critical Applications Recovery Not tested
Administration	8 (73%)	11 (100%)
Agriculture and Consumer Services	0	3 (100%)
Auditor	5 (83%)	0
Commerce	3 (20%)	4 (27%)
Correction	2 (25%)	4 (50%)
Crime Control and Public Safety	9 (28%)	12 (38%)
Cultural Resources	5 (100%)	5 (100%)
Employment Security Commission	0	1 (11%)
Environment and Natural Resources	11 (55%)	4 (20%)

Department Critical Breakdown by Agency Cont.

Agency	Department Critical Applications with Inadequate Recovery Capability	Department Critical Applications Recovery Not Tested
Health and Human Services	6 (10%)	31 (51%)
ITS	4 (50%)	2 (25%)
Insurance	0	8 (100%)
Justice	0	1 (2%)
Juvenile Justice and Delinquency Prevention	0	2 (67%)
Labor	6 (86%)	6 (86%)
Public Instruction	19 (45%)	41 (98%)
Revenue	6 (75%)	6 (75%)
Transportation	10 (28%)	13 (36%)
Statewide Total	**94 (27%)**	**154 (44%)**

Recommendations

⌘ Utilize a statewide approach to improve, standardize and manage business continuity planning tools

⌘ Use data to identify common gaps

⌘ Provide opportunity for agencies to conduct both formal and informal tests

Next Steps

⌘ State CIO, in conjunction with agencies and OSBM, develop priority list and plan to provide adequate recovery capability to the most critical applications

⌘ Must be phased approach because of budget crisis

⌘ Set milestone dates for completion and provide updates to the General Assembly, Governor and agency heads

E-mail Background

⌘ E-mail has become central to state government, just as to private sector

  ⌂ Executive branch agency employees use e-mail more than 1 million times daily to communicate and share documents

  ⌂ State's e-mail servers receive more than 5 million incoming messages daily; deliver 300,000 after filtering out spam and viruses

⌘ State moving to single system for years

⌘ By mid-2009, roughly two-thirds of executive branch employees will utilize e-mail service offered by ITS

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⌘ General Assembly last year directed State CIO to develop plan to implement single e-mail system for executive branch agencies by January 1, 2010

⌘ State CIO named project manager to oversee preparation of report; ITS Mail Team compiled information

E-mail Findings

- By mid-2009, roughly 43,000 users in 25 executive branch agencies and departments and local governments will be using ITS e-mail service

- More than 10,000 users added this year

- Almost 19,000 users in 10 agencies will remain on individual e-mail systems

- January 1, 2010 deadline not realistic, given budget timing and revenue forecasts

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Agencies not on central e-mail system	Number of accounts
Crime Control and Public Safety (3 systems)	3,090
Department of Correction	10,200
Department of Justice	1,500
Department of Public Instruction	803
State Auditor	213
Department of Revenue	1,719
Secretary of State	240
NC Ports Authority	220
Department of Community Colleges	250
State Treasurer	600
Total	18,835

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- ⌘ Estimated cost of moving 10 remaining agencies to single e-mail system
- ⌘ $686,749 non-recurring
  - ⌂ Included in IT Fund request for 2009-2010
- ⌘ $222,708 recurring costs for agencies
- ⌘ $1.95 million recurring costs for ITS – recovered through subscriptions
- ⌘ At least three agencies could see higher operating costs
  - ⌂ DPI, Secretary of State and Corrections
  - ⌂ Costs could be mitigated with better management of storage

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- OSBM in May 2008 identified several benefits from single e-mail system

- Savings of more than $7 million annually in improved productivity and cost savings

- Single e-mail system is absolute prerequisite for any e-mail archiving system

⌘ Increased cost of storage primary concern expressed by agencies

⌘ Storage cost partially addressed by increasing amount of storage included with each e-mail account from 100 MB to 512 MB

� Represents an increase, on average, from 957 messages to 4,900

⌘ Other issues, such as security, can be addressed

E-document Pilot

⌘ Budget provision directed State CIO to pilot a statewide electronic document management system with digital signature capability

⌘ Pilot must develop program requirements, including policies and procedures for managing and preserving electronic records

⌘ ABC Commission selected for pilot
- ⌂ Already implementing an electronic document management project
- ⌂ Technical capability to do pilot
- ⌂ Project timelines in line with pilot legislation

Accomplishments

- ⌘ Setup of ABC portal application complete
- ⌘ Integration with the ITS Document Management Service Repository complete
- ⌘ eForm, workflow and eSignature procurement in progress; targeted for early February completion
- ⌘ Pilot training and testing targeted for a late February completion
- ⌘ Will provide report by April 1, 2009, as required by budget provision

State Portal

- ⌘ North Carolina's pioneering state portal has become dated
- ⌘ NC went from best in the nation to middle of the pack
  - ⌃ Ranking by Center for Digital Government (CDG)
    - ⊠ Best of the Web 2000 = 1st place
    - ⊠ Most Digital State 2004 = 10th place
    - ⊠ Most Digital State 2008 = 22nd place (unchanged from 2006)
  - ⌃ Ranking by Better Government Association 2008 = 23rd place
  - ⌃ Ranking by Brookings Institution 2008 = 29th place

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⌘ New portal designs are rich in content, features, and functionality

⌘ Offer more online self-service tasks and transactions for citizens and businesses

⌘ Use social networking and social media tools so citizens can engage more with their government

- Podcasts, webcasts
- YouTube video channels
- Flickr photo sharing
- Twitter blogs
- Facebook, MySpace accounts

State Portal Design Trends

⌘ Offer greater transparency and accountability. Citizens can:

- Follow and participate in public meetings
- Search public records online
- Track government expenditures and review contracts with state vendors

⌘ Provide more services at reduced costs to taxpayers

- Utah – Center for Digital Government's Most Digital State for 2008 – now operates state agencies on a 4-day work week
- Citizens and businesses conduct most frequently requested tasks online at times convenient to them
- Shorter work week cuts costs, saves energy and reduces commuting by state employees

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Trend / Tool	States Using
⌘ Google search engine	24
⌘ RSS, email, mobile updates	31
⌘ Flickr, YouTube, Twitter, etc.	25
⌘ Online customer service survey form	21
⌘ Live chat, support	21
⌘ Mobile access	13
⌘ Multiple languages	20
⌘ GIS, interactive maps	27
⌘ Transparency, accountability sites	28

⌘ Funding

- ⌃ Appropriations, user fees or advertising?
- ⌃ Current economic conditions and projected revenue shortfall may preclude major funding infusion in the near future

⌘ Governance

- ⌃ Multiple agencies, no single authority
- ⌃ State Portal Management Advisory Council oversaw most recent redesign in 2005, but there is no dedicated (time + money) oversight group for day-to-day decision making

⌘ Resources

- ⌃ ITS is statutorily required to maintain portal
- ⌃ Two ITS employees maintain portal part-time, as time and priorities allow
- ⌃ According to a Terry Sanford Institute report, NC uses the fewest resources for portal maintenance of any state

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⌘ Redesign and maintain in-house requires dedicated:

- Recurring funding
- Permanent resources
- Ongoing oversight

⌘ Outsource using self-funding, public-private partnership

- Half of the Center for Digital Government's Top 10 Digital States are outsourced, using a combination of state and private resources
- Eight of the Center for Digital Government's Top 10 Best of the Web States are outsourced
- Nationwide, 22 states use this method, with more considering it
  - California has an RFP soliciting bids to outsource its portal

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Conclusion

⌘ Complete reports available at:

http://www.scio.state.nc.us/

⌘ Questions?